

What is claimed:

1. A router with a precedence control function comprises;
means for collecting empty band related information for
collecting empty band related information related to an empty
band of each route existing between own router and a
5 communication IP packet and storing route determining
information including the collected empty band related
information, route collecting said empty band related
information and precedence of said communications IP packet
in route storing portion, in the event of receiving the
10 communications IP packet from a terminal directly connected
to own router and
route specifying portion for finding all of the route
determining information having precedence equal to said
communications IP packet and a route matching one of the
15 route available for said IP packet and selecting a route having
no overlapping with the route used by other packet with
precedence higher than said communications IP packet and the
largest empty band among the found route determining
information as the route of said communications IP packet, in
20 the event of receiving the communications IP packet from a
terminal directly connected to own router.
2. A router with a precedence control function as claimed in
claim 1, wherein said empty band related information is return
times of dummy packets.

3. A router with a precedence control function as claimed in claim 1, wherein said means for collecting empty band related information comprises;

5 a dummy packet generating portion for transmitting a dummy packet requiring a return dummy packet in which each route available for said communications IP packet includes originating time, precedence and a route of said communications IP packet and the last router includes said originating time, precedence and a route, in the event of
10 receiving a communications IP packet from a terminal directly connected to own router,

a return time measuring portion for calculating return time of the dummy packet based on the time when said return dummy packet is received and originating time in said return dummy
15 packet, in the event of receiving the return dummy packet and storing the route determining information including said calculated return time, precedence of said return dummy packet and a route of said return dummy packet in said route storing portion.

20

4. A router with a precedence control function as claimed in claim 3, wherein said dummy packet generating portion has a composition of transmitting dummy packet at each time when a predetermined number of communication IP packet is received
5 from a terminal directly connected to own router.

5. A machine-readable recording medium for recording a

program for actuating a computer for a router as;

means for collecting empty band related information for
collecting empty band related information related to an empty
5 band of each route existing between a computer for own router
and a communication IP packet and storing route determining
information including the collected empty band related
information of each route, route collecting said empty band
related information and precedence of said communications IP
10 packet in route storing portion, in the event of receiving the
communications IP packet from a terminal directly connected
to the computer for own router and

a route specifying portion for finding all of the route
determining information having precedence equal to said
15 communications IP packet and a route matching one of the
route available for said IP packet and selecting a route having
no overlapping with the route used by other packet with
precedence higher than said communications IP packet and the
largest empty band among the found route determining
20 information as the route of said communications IP packet, in
the event of receiving the communications IP packet from a
terminal directly connected to the computer for own router.